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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,939	08/26/2003	John L. Galvagni	AVX-187-DIV	3080
22827	7590	09/14/2005	EXAMINER	
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			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/647,939

Applicant(s)

GALVAGNI ET AL.

Examiner

Tim Phan

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/27/03 & 11/6/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Title

1. The following title is suggested: "Method for Adjusting the ESR of multilayer component".

Abstract

2. Applicants are reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Currently, the Abstract has 174 words counted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 6-7 and 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Novak (US 6,215,372).

As applied to claim 6, Novak teaches a method for reducing electrical resonances and noise propagation in multilayer board, comprising:

- producing a multilayer component (Fig. 6, 600) including at least first and second electrode layers (Fig. 6, items 602, 604, 606 or 608) separated by an insulating layer (Fig. 6, items 610, 612 or 614);
- providing a resistive layer (Fig. 6, 650 or 652) with the insulating layer and the first and second electrically conductive layers; and
- adjusting the ESR (Col. 8, lines 59-61; col. 9, lines 5-20) of the component by varying the effective resistance of the resistive layer.

As applied to claim 7, Novak teaches that the providing step comprises:

- providing the resistive layer (Fig. 6, 650 or 652) between the insulating layer (Fig. 6, 610 or 614) and one of the first or second electrically conductive layers (Fig. 6, 602 or 608).

As applied to claims 9 and 11, Novak teaches that the adjusting step comprises:

- varying the effective resistance of the resistive layer by adjusting the thickness of the resistive layer (Fig. 1, h) for the capacitance value equation (Col. 10, line 50).

As applied to claims 10 and 12, Novak teaches that the adjusting step comprises:

- varying the effective resistance of the resistive layer by adjusting the composition of the resistive layer (Col. 9, lines 5-20).

As applied to claim 13, Novak teaches a method for reducing electrical resonances and noise propagation in multilayer board:

- producing a multilayer component (Fig. 6, 600) having a plurality of successively stacked electrode layers (Fig. 6, items 602, 604, 606 or 608);
- providing separate insulating layers (Fig. 6, items 610, 606 or 614) sandwiched between each of the electrode layer; and
- varying a physical property of selected of the separate insulating layers with different capacitance (Fig. 6, 652) whereby the resonance characteristics of the multi-layer component are adjusted (Abstract).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Novak.

Novak teaches a method for reducing electrical resonances and noise propagation in multilayer board, including the adjusting steps of:

- perforating one of the first or second electrically conductive layers (Fig. 10, items 1002, 1004, 1006 or 1008) with a plurality of through-holes (Fig. 10, 1022 or 1024); and
- varying the effective resistance of the resistive layer by adjusting capacitive islands (Fig. 6, 652 or Fig. 10, 1052) at selected areas or distances from vias (Fig. 6, 622 or Fig. 10, 10220) whereby the extent of coverage of the perforated electrode varies the effective resistance of the resistive layer, except for detailing these selected areas or distances as varying and spacing diameters of through-holes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to consider these selected areas or distances as varying and spacing diameters of through-holes, which can vary and match the impedance of the multilayer circuit in order to

reduce noise and any ground bounce signal.

Conclusion


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M - F, 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tim Phan
Examiner
Art Unit 3729
tp
September 11, 2005



A. DEXTER TUGBANG
PRIMARY EXAMINER